

CLAIMS:

1. Method of controlling a configuration of radio links in a cellular communication system, the system accommodating communication in a radio network comprising a network controller (14), mobile units (100) and base stations (101), the method comprising:
 - maintaining, in the mobile unit and in the base station, a synchronization counter (111,116) indicating time codes for synchronization of functions across the system,
 - transferring messages between the network controller, the base stations and the mobile units, the messages including
 - a change command for changing a configuration, and
 - a reconfiguration command for changing a current configuration state to a next configuration state at a selected future time code, which configuration change involves at least one mobile unit and at least one base station,the method further comprising
 - determining a prepared reconfiguration period (67), which period starts at a transmission time code of the reconfiguration command, and ends at the selected future time code,
 - and adding a prepared reconfiguration period indicator (66) to the change command.

2. Method as claimed in claim 1, wherein the synchronization counter (111,116) has a synchronization cycle indicated by a limited number of the time codes, and the change command comprises a reference time code for providing a passed reference time in the synchronization cycle, and the prepared reconfiguration period indicator (66) is indicating that the reference time code is indicating the selected future time code.

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3. Method as claimed in claim 1 or 2, wherein the prepared reconfiguration period indicator (66) comprises the transmission time code.
4. Method as claimed in claim 1, 2 or 3, wherein the prepared reconfiguration period indicator (66) is selectively added to the change command in the event that a change command is to be transferred in the prepared reconfiguration period (67).
5. Method as claimed in claim 1, 2, 3 or 4, wherein the prepared reconfiguration period indicator (66) is selectively added to the change command for a mobile unit or base station not involved in the configuration change when issuing the reconfiguration command.
6. Method as claimed in claim 1, 2, 3, 4 or 5, wherein the change command is a link change command (62) for adding a radio link to the configuration.
7. Method as claimed in claim 1, 2, 3, 4, 5 or 6, wherein the changing the current configuration state to the next configuration state comprises changing a compressed transmission mode (63) in a radio link.
8. Method of controlling a mobile unit in a cellular communication system, the system accommodating communication in a radio network comprising a network controller, mobile units and base stations, the method comprising
 - maintaining, in the mobile unit, a synchronization counter (111) indicating time codes for synchronization of functions across the system, and
 - transferring messages between the mobile unit and the base stations, the messages including
 - a change command for changing a configuration, and
 - a reconfiguration command for changing a current configuration state to a next configuration state at a selected future time code, which configuration change involves at least one mobile unit and at least one base station,

- the system being arranged for determining a prepared reconfiguration period (67), which period starts at a transmission time code of the reconfiguration command, and ends at the selected future time code, and the change command comprising a prepared reconfiguration period indicator (66);

the method further comprising

- detecting the prepared reconfiguration period indicator (66) from the change command,
- and, in the event that the future selected time code has not yet passed, subsequently at the future selected time code setting the configuration according to the next configuration.

9. Method as claimed in claim 8, wherein the method comprises, in the event that the future selected time code has not yet passed, executing the change command according to the current configuration, and, in the event that the future selected time code has passed, executing the change command according to the next configuration.

10. Method as claimed in claim 8 or 9, wherein the synchronization counter (111) has a synchronization cycle indicated by a limited number of the time codes, and the change command comprises a reference time code for providing a passed reference time in the synchronization cycle, and the prepared reconfiguration period indicator (66) is indicating that the reference time code is indicating the selected future time code, and the method comprises, for detecting whether a current time code has passed the future selected time code, detecting whether the current time code is in a part of the synchronization cycle covered by the prepared reconfiguration period (67).

11. Method of controlling a base station in a cellular communication system, the system accommodating communication in a radio network comprising a network controller, mobile units and base stations, the method comprising

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- maintaining, in the base station, a synchronization counter (116) indicating time codes for synchronization of functions across the system, and
- transferring messages between the base station and mobile units, the messages including
 - a change command for changing a configuration, and
 - a reconfiguration command for changing a current configuration state to a next configuration state at a selected future time code, which configuration change involves at least one mobile unit and at least one base station,
- the system being arranged for determining a prepared reconfiguration period (67), which period starts at a transmission time code of the reconfiguration command, and ends at the selected future time code, and the change command comprising a prepared reconfiguration period indicator (66);

the method further comprising

- detecting the prepared reconfiguration period indicator (66) from the change command,
- and, in the event that the future selected time code has not yet passed, subsequently at the future selected time code setting the configuration according to the next configuration.

12. Method as claimed in claim 11, wherein the method comprises, in the event that the future selected time code has not yet passed, executing the change command according to the current configuration, and, in the event that the future selected time code has passed, executing the change command according to the next configuration.

13. Method as claimed in claim 11 or 12, wherein the synchronization counter (116) has a synchronization cycle indicated by a limited number of the time codes, and the change command comprises a reference time code for providing a passed reference time in the synchronization cycle, and the prepared reconfiguration period indicator (66) is indicating that the reference time code is indicating the selected future time code, and

the method comprises, for detecting whether a current time code has passed the future selected time code, detecting whether the current time code is in a part of the synchronization cycle covered by the prepared reconfiguration period (67).

14. Mobile unit for use in a cellular communication system, the system accommodating communication in a radio network comprising a network controller, mobile units and base stations, the mobile unit comprising

- a synchronization counter (111) indicating time codes for synchronization of functions across the system, and
- means (110) for transferring messages between the mobile unit and the base stations, the messages including
 - a change command for changing a configuration, and
 - a reconfiguration command for changing a current configuration state to a next configuration state at a selected future time code, which configuration change involves at least one mobile unit and at least one base station,
- the system being arranged for determining a prepared reconfiguration period (67), which period starts at a transmission time code of the reconfiguration command, and ends at the selected future time code, and the change command comprising a prepared reconfiguration period indicator (66);

the mobile unit further comprising reconfiguration means (112) for detecting the prepared reconfiguration period indicator (66) from the change command, and for, in the event that the future selected time code has not yet passed, subsequently at the future selected time code setting the configuration according to the next configuration.

15. Mobile unit as claimed in claim 14, wherein the reconfiguration means (112) are arranged for, in the event that the future selected time code has not yet passed, executing the change command according to the current configuration,

and for, in the event that the future selected time code has passed, executing the change command according to the next configuration.

16. Mobile unit as claimed in claim 14 or 15, wherein the synchronization counter (111) has a synchronization cycle indicated by a limited number of the time codes, and the change command comprises a reference time code for providing a passed reference time in the synchronization cycle, and the prepared reconfiguration period indicator is indicating that the reference time code is indicating the selected future time code, and

the reconfiguration means (112) are arranged for, in order to detect whether a current time code has passed the future selected time code, detecting whether the current time code is in a part of the synchronization cycle covered by the prepared reconfiguration period.

17. Device for controlling a base station in a cellular communication system, the system accommodating communication in a radio network comprising a network controller, mobile units and base stations, the device comprising

- a synchronization counter (116) indicating time codes for synchronization of functions across the system, and
- means (114) for transferring messages between the base station and mobile units, the messages including
 - a change command for changing a configuration, and
 - a reconfiguration command for changing a current configuration state to a next configuration state at a selected future time code, which configuration change involves at least one mobile unit and at least one base station,
- the system being arranged for determining a prepared reconfiguration period (67), which period starts at a transmission time code of the reconfiguration command, and ends at the selected future time code, and the change command comprising a prepared reconfiguration period indicator (66);

the device further comprising reconfiguration means (115) for detecting the prepared reconfiguration period indicator (66) from the change command, and, in the event that the future selected time code has not yet passed, subsequently at the future selected time code setting the configuration according to the next configuration.

18. Device as claimed in claim 17, wherein the reconfiguration means (115) are arranged for, in the event that the future selected time code has not yet passed, executing the change command according to the current configuration, and for, in the event that the future selected time code has passed, executing the change command according to the next configuration.

19. Device as claimed in claim 17 or 18, wherein the synchronization counter (116) has a synchronization cycle indicated by a limited number of the time codes, and the change command comprises a reference time code for providing a passed reference time in the synchronization cycle, and the prepared reconfiguration period indicator is indicating that the reference time code is indicating the selected future time code, and the reconfiguration means (115) are arranged for, in order to detect whether a current time code has passed the future selected time code, detecting whether the current time code is in a part of the synchronization cycle covered by the prepared reconfiguration period.

20. Computer program product for controlling reconfiguration in a cellular communication system, which program is operative to cause a processor to perform the method as claimed in any of the claims 1 to 13.